

ABSTRACT

The invention disclosed is an apparatus, or system, and methodology for power
 efficient, flexible, data efficient wireless transmission, receipt and interpretation of
 signals from a patient, such signals reflecting one or more measured physiological
 and patient specific parameters such as an electrocardiogram,
 electroencephalogram, electromyogram and/or patient ID. The system includes a
 mobile transmitter for attachment to a patient, which is a battery powered
 sensor/transmitter device for transmission of enhanced data transmission rate signals
 in multiple frequencies within a given frequency band; a receiver for receiving the
 signals; and a display analysis and/or recording device for interpretation of the
 received signals. The system operates using a spread spectrum transmission technique
 which reduces interference with the detection of the transmitted signals. The mobile
 transmitter and the receiver include corresponding optical components for
 establishing a duplex optical link allowing for changes to operating characteristics
 while transmission is occurring.